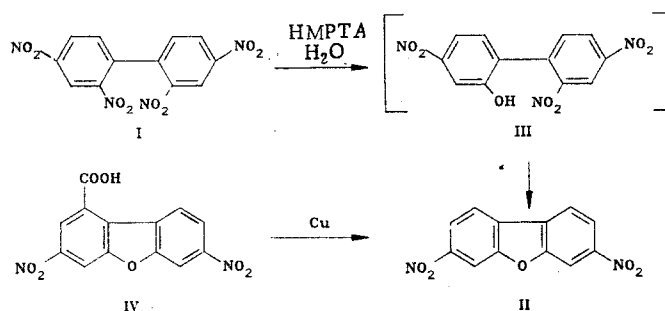


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We showed that when 2,2',4,4'-tetranitrobiphenyl (I) is heated in HMPTA, 3,7-dinitrobenzofuran (II) is formed, mp 324-324.5°C (from acetic acid); R_f 0.58 (benzene, Silufol UV-254 plates). IR spectrum (KBr): 1610, 1510, 1480, 1440, 1415, 1340, 1305, 1200, 1055, 920, 880, 815, 735 cm^{-1} . The data of the elemental analysis correspond to the calculated data. At first, the nitro group at the 2-position is probably replaced by a hydroxy group with the formation of phenol III, followed by its cyclization. To prove its structure, compound II was obtained by decarboxylation of acid IV [1] by copper in quinoline.



The replacement of the nitro group by a hydroxy group in 2,2',4,4'-6-pentanitro- (V) and 2,2',4,4'-6,6'-hexanitrobiphenyl (VI) in HMPTA proceeds already at room temperature. The replacement of the nitro groups in compounds V and VI by fragments of other nucleophilic reagents, for example, amines, in a HMPTA medium, also proceeds readily.

LITERATURE CITED

1. A. M. Andrievskii, A. N. Poplavskii, and K. M. Dyumaev, Zh. Vses. Khim. Ob-va, 26, 101 (1981).